

October 28, 1998

PURPOSE AND OBJECTIVES OF CMARP

PURPOSE

Provide facts and scientific interpretations necessary for implementing CALFED and for evaluating CALFED success.

OBJECTIVES

- Document conditions
- Recognize trends
- Assess causes of observed changes
- Partner with management to undertake adaptive management
- Reduce scientific uncertainties
- Communicate results to the public

CMARP MONITORING SCOPE

- **Baseline Monitoring**
Provides an indication of current conditions, relative to some selected time-period. Requires monitoring variables that can show long-term trends that are not masked by daily or seasonal variations. Addresses the question “what has changed.”
- **Trend Monitoring**
Monitoring of long-term changes in key indicators or conditions (e.g., fish populations). Includes monitoring of variables (e.g., streamflow, salinity, and temperature) that are most likely associated with changes in key conditions. Attempts to address “when things have changed” and “why” they have changed.
- **Effectiveness Monitoring**
Intended to determine whether and to what degree any specified practice achieved its immediate objectives. (Did the project do what it was supposed to do)? Validates hypotheses and conceptual models that predict changes among variables. Validates theories on the effectiveness of certain actions.
- **Compliance/Mitigation Monitoring**
Usually required by a permitting authority resulting from project development and operation. Intended to determine whether and to what degree specified objectives, standards or mitigation measures are being met.
- **Operations Monitoring**
Monitoring in support of specified project operations. Intended to provide up-to-date information to management and operators to allow for flexibility in project operations. Examples include real-time fishery and water quality monitoring.

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Focusing on CALFED's Needs -- List of Some Key Questions to be Addressed by a CMARP

LONG-TERM LEVEE PROTECTION PLAN

- Is there increased reliability in Delta levee structure?

WATER QUALITY PROGRAM

- Are significant reductions in point and non-point sources of pollution being obtained?
- Is Delta water quality improving?

ECOSYSTEM RESTORATION PROGRAM

- Are significant improvements being made in habitat quality?
- Are listed and targeted species being recovered?

WATER USE EFFICIENCY PROGRAM

- Are water use efficiency measures being applied as a result of the program?
- Are measures resulting in increased efficiencies?

WATER TRANSFER PROGRAM

- Are water transfers resulting in beneficial or detrimental impacts at either source or destination locations?
- Are transfers of real water occurring?

WATERSHED PROGRAM

- Are watershed management activities resulting in achieving desired results?

STORAGE AND CONVEYANCE

- Have established triggers that warrant additional actions been pulled?

ASSURANCES REGARDING CALFED ACTIONS

- Is monitoring providing information for flexible project operations?
- Are mitigation actions being implemented and are they successful?
- Is CALFED complying with regulatory standards and objectives developed for project specific actions?

CMARP STEERING COMMITTEE

Agencies

U.S. Bureau of Reclamation

U.S. Fish and Wildlife Service

U. S. Geological Survey

U.S Environmental Protection Agency

CALFED

California Department of Fish and Game

Department of Water Resources

Stakeholders

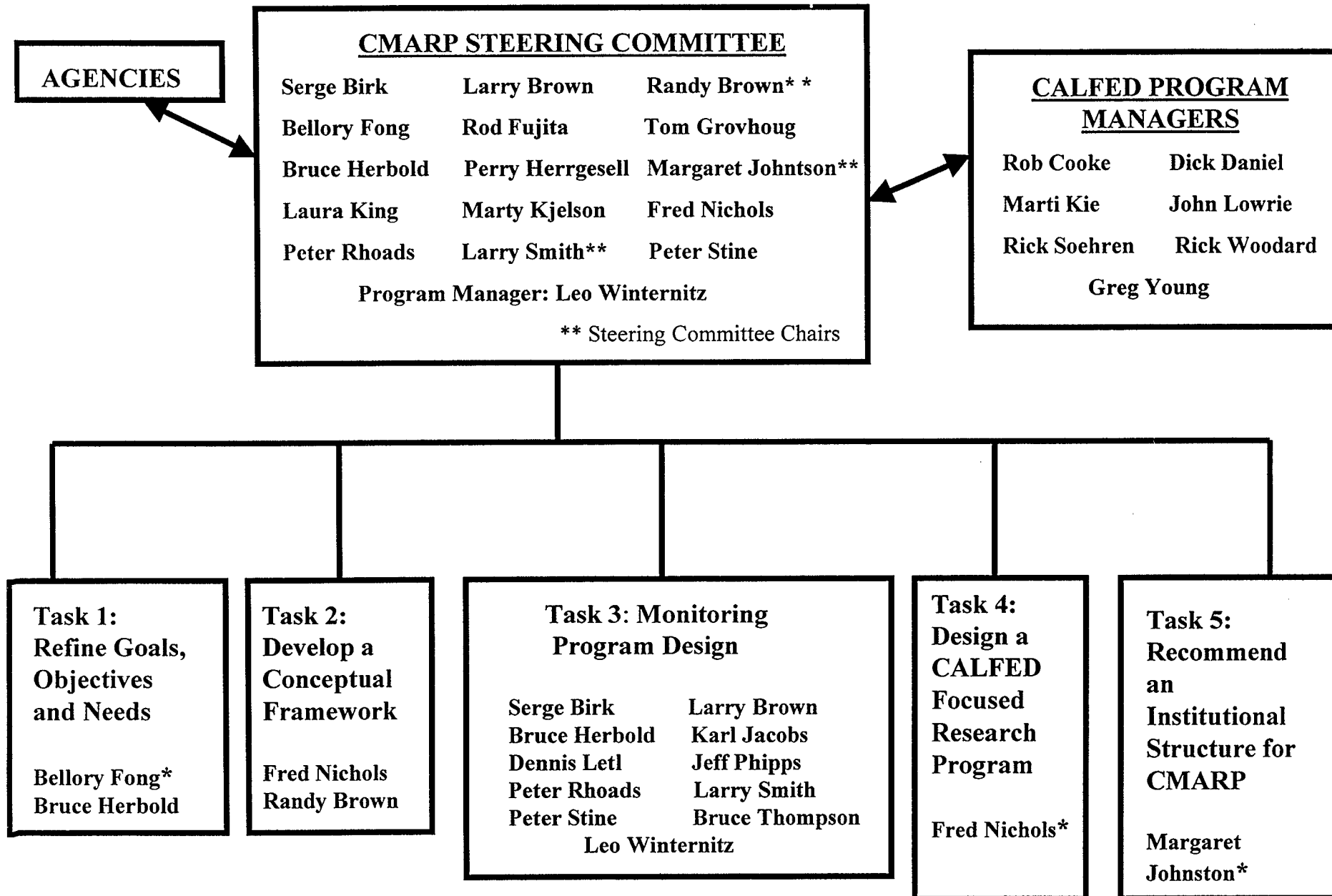
Central Valley Project Water Association

Larry Walker and Associates

San Francisco Estuary Institute

Metropolitan Water District

Environmental Defense Fund



* Team Leader

CMARP STEERING COMMITTEE TASKS

- **TASK NUMBER ONE – Identify the Goals, Objectives and Needs of CALFED Common Programs, Related Programs, and Agency Major Program Goals and Objectives**

Identify the goals, objectives and needs of the CALFED Common Programs, (Ecosystem Restoration, Water Quality, Water Transfers, Water Use Efficiency, Watershed Management and Delta Levees) and related programs (Category III, Conservation Strategy and Indicators). Compile Agency major program goals and objectives. Develop CMARP monitoring elements and a research program based on identified goals and objectives. Continuing and iterative process.

- **TASK NUMBER TWO – Develop a Conceptual Framework**

Focuses the development of explicit conceptual models for use in designing monitoring and research programs. Also useful for documenting the basis of earlier decisions on program design. This task is being accomplished in coordination with monitoring and research programs from Puget Sound, Chesapeake Bay and South Florida.

- **TASK NUMBER THREE – Monitoring Program Design**

Comprised of five sub-tasks:

- A) Inventory Existing Monitoring Programs
- B) Develop Monitoring Elements (there are 6 elements and 13 sub-elements. See Organization chart).
- C) Develop a Process for Data Management
- D) Develop a Process for Data Analysis and Monitoring
- E) Category III Monitoring Institutional Process

- **TASK NUMBER FOUR – Design a CALFED Focused Research Program**

Purpose of Task Four is to investigate causes and trends; reduce areas of scientific uncertainty; corroborate relationships in conceptual models.

- **TASK NUMBER FIVE – Recommend an Institutional Structure for Monitoring, Assessment and Research**

This task will focus on identifying functions of a CMARP successor; recommend how it should operate; how it should be funded; who it should be accountable to, and identify its relationship to CALFED.

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DEVELOPMENT SCHEDULE FOR CMARP PRODUCT

Task Timeline

1998

- July 1-31 – Organize CMARP organizational structure. Develop work teams; hold “roadmap” workshop for work team members; send out operational instructions; coordinate with CALFED.
- August 1 - September 30 – Periodic review of progress by Steering Committee. Work team draft products due in by September 30.
- October 20-21 – Two day facilitated workshop with Steering Committee, team leaders and appropriate work team members to foster communications and integrate draft products.
- November 9-13 – Internal review of draft report by CALFED Program Managers.
- November 23 - December 14 – Public review period.

1998/1999

- December 15-January 22, 1999 – CMARP staff and Steering Committee revise document in response to comments.
- January 29 – Distribute final report to CALFED Policy Team and the public.
- January-December '99 – Refinement and early implementation.

CHINESE PROVERB

Unless you change
your direction, you
are apt to end up
where you are headed.